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EXAMINER

TABATABAI, ABOLFAZL

| ART UNIT | PAPER NUMBER |
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2625

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/728,572

Applicant(s)

KUZMA, ANDREW

Examiner

Abolfazl Tabatabai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Amendment/Arguments

1. Applicant's arguments, (pages 6-9), filed on February 17, 2005 with respect to the rejection(s) of claim(s) 1-19 under Downs et al (U S 6,226,618 B1) in view of Ahmed (U S 6,512,837 B1) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Petrovic (U S 6,430,301) and Ahmed (U S 6,512,837 B1).
2. Applicant argues in essence that the prior art does not teach or suggest analyzing the watermark.
3. Examiner disagrees and indicates that Petrovic teaches analyzing the watermark (column 3, lines 15-18 and lines 48-50).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 4 and 8-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrovic (U S 6,430,301 B1) in view of Ahmed (U S 6,512,837 B1).

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Regarding claim 1, Petrovic discloses a method and apparatus of securely providing data to a user system which comprising:

a content server connected to a network (see abstract and column 4, lines 51-53), said content server capable of delivering content over said network (column 3, lines 47-50) said content containing a digital watermark (column 12, lines 25-27).

However, Petrovic is silent about the specific details regarding the step of:

at least one monitor station to receive said content over said network and analyzing said digital watermark for information indicative of degradation of said content.

In the same field (watermarking) of endeavor, however, Ahmed discloses an apparatus for detecting, identifying and incorporating advertisements in a video image comprising the step of:

at least one monitor station to receive said content over said network and analyzing said digital watermark for information indicative of degradation of said content (column 3, lines 33-37; 61-67 and column 4, lines 2-11; please note that the monitor is considered inherent because a monitor is required to display the watermark signal along with graphic indicators highlighting altered blocks and their corresponding types of alteration, a watermark decoding process for detecting and characterizing alterations to a watermark image based on a comparison of a signal metrics computed of the watermark image and extracted from the watermark message. The decoder reads the watermarked image and divides it into blocks of the same size used by embedder and calculates metrics

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that form the signature of each block. The watermark decoder extracts the watermark message payload from each block, potentially after re-aligning the image data using the calibration signal embedded in the watermark. The decoder compares the computed signatures with the signatures extracted from the watermark. The differences between the computed and extracted signatures analyzes degradation of the content or watermark image).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use indicative of degradation of said content as taught by Ahmed in the system of Petrovic because Ahmed provides Petrovic an improve system for detecting and characterizing alteration of media content such as images, video and audio signals, using watermark messages to carry signal metrics. Signal metrics are typically tuned to detect specific types of alteration, like compression, photocopying, printing and scanning. The application of signal metrics is useful in determining whether a printed article is genuine.

Regarding claim 2, Petrovic discloses the system wherein said network is the Internet (fig. 1 element 170 and column 4, lines 51-53).

Regarding claim 4, Petrovic discloses the system wherein further including a content server monitor station to receive said content directly from said content server and analyzing said digital watermark (column 3, lines 15-18 and 47-50).

Regarding claim 8, Petrovic discloses a method and apparatus of securely providing data to a user method, comprising:

integrating a digital watermark into content (see abstract and column 12, lines 25-27);

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distributing said content over a network as distributed content (column 4, lines 51-53);

receiving said distributed content in at least one location of said network (see abstract and column 12, lines 36-40).

However, Petrovic is silent about the specific details regarding the step of:

at least one monitor station to receive said content over said network and analyzing said digital watermark for information indicative of degradation of said content.

In the same field (watermarking) of endeavor, however, Ahmed discloses an apparatus for detecting, identifying and incorporating advertisements in a video image comprising the step of:

analyzing said digital watermark of said distributed content for information indicative of the quality of said distributed content (column 3, lines 33-37; 61-67 and column 4, lines 2-11; please note that the monitor is considered inherent because a monitor is required to display the watermark signal along with graphic indicators highlighting altered blocks and their corresponding types of alteration. A watermark decoding process for detecting and characterizing alterations to a watermark image based on a comparison of a signal metrics computed of the watermark image and extracted from the watermark message. The decoder reads the watermarked image and divides it into blocks of the same size used by embedder and calculates metrics that form the signature of each block. The watermark decoder extracts the watermark message payload from each block, potentially after re-aligning the image data using the calibration signal embedded

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in the watermark. The decoder compares the computed signatures with the signatures extracted from the watermark. The differences between the computed and extracted signatures analyzes degradation of the content or watermark image).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use indicative of degradation of said content as taught by Ahmed in the system of Petrovic because Ahmed provides Petrovic an improve system for detecting and characterizing alteration of media content such as images, video and audio signals, using watermark messages to carry signal metrics. Signal metrics are typically tuned to detect specific types of alteration, like compression, photocopying, printing and scanning. The application of signal metrics is useful in determining whether a printed article is genuine.

Regarding claim 9, Ahmed discloses the method including analyzing said content prior to distribution over said network for information indicative of the quality of said content (column 3, lines 33-37; 61-67 and column 4, lines 2-11).

Regarding claim 10, Ahmed discloses the method including comparing the information indicative of the quality of said distributed content to the information indicative of the quality of said content (column 3, lines 38-41).

Regarding claim 11, Petrovic discloses a machine-readable medium having stored thereon instructions, which if executed by a processor, cause the processor to effect the following, comprising:

integrating a digital watermark into content (see abstract and column 12, lines 25-27);

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distributing said content over a network as distributed content (column 4, lines 51-53);

receiving said distributed content in at least one location of said network (see abstract and column 12, lines 36-40).

However, Petrovic is silent about the specific details regarding the step of:

analyzing said digital watermark of said distributed content for information indicative of the quality of said distributed content.

In the same field (watermarking) of endeavor, however, Ahmed discloses an apparatus for detecting, identifying and incorporating advertisements in a video image comprising the step of:

analyzing said digital watermark of said distributed content for information indicative of the quality of said distributed content (column 3, lines 33-37; 61-67 and column 4, lines 2-11; please note that the monitor is considered inherent because a monitor is required to display the watermark signal along with graphic indicators highlighting altered blocks and their corresponding types of alteration. A watermark decoding process for detecting and characterizing alterations to a watermark image based on a comparison of a signal metrics computed of the watermark image and extracted from the watermark message. The decoder reads the watermarked image and divides it into blocks of the same size used by embedder and calculates metrics that form the signature of each block. The watermark decoder extracts the watermark message payload from each block, potentially after re-aligning the image data using the calibration signal embedded in the watermark. The decoder compares the computed

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signatures with the signatures extracted from the watermark. The differences between the computed and extracted signatures analyzes degradation of the content or watermark image).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use indicative of degradation of said content as taught by Ahmed in the system of Petrovic because Ahmed provides Petrovic an improve system for detecting and characterizing alteration of media content such as images, video and audio signals, using watermark messages to carry signal metrics. Signal metrics are typically tuned to detect specific types of alteration, like compression, photocopying, printing and scanning. The application of signal metrics is useful in determining whether a printed article is genuine.

Claim 12, is similarly analyzed as claim 9 above.

Claim 13, is similarly analyzed as claim 10 above.

Regarding claim 14, Petrovic discloses a system comprising:

means to server content that is connected to a network (fig. 1 element 100 and column 4, lines 51-53), said means to serve content capable of delivering content over said network (column 3, lines 47-50, said content containing a digital watermark (column 12, lines 25-27).

However, Petrovic is silent about the specific details regarding the step of:

at least one monitor station to receive said content over said network and analyzing said digital watermark for information indicative of degradation of said content.

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In the same field (watermarking) of endeavor, however, Ahmed discloses an apparatus for detecting, identifying and incorporating advertisements in a video image comprising the step of:

at least one monitor station to receive said content over said network and analyzing said digital watermark for information indicative of degradation of said content (column 3, lines 33-37; 61-67 and column 4, lines 2-11; please note that the monitor is considered inherent because a monitor is required to display the watermark signal along with graphic indicators highlighting altered blocks and their corresponding types of alteration. A watermark decoding process for detecting and characterizing alterations to a watermark image based on a comparison of a signal metrics computed of the watermark image and extracted from the watermark message. The decoder reads the watermarked image and divides it into blocks of the same size used by embedder and calculates metrics that form the signature of each block. The watermark decoder extracts the watermark message payload from each block, potentially after re-aligning the image data using the calibration signal embedded in the watermark. The decoder compares the computed signatures with the signatures extracted from the watermark. The differences between the computed and extracted signatures analyzes degradation of the content or watermark image).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use indicative of degradation of said content as taught by Ahmed in the system of Petrovic because Ahmed provides Petrovic an improve system for detecting and characterizing alteration of media content such as

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images, video and audio signals, using watermark messages to carry signal metrics. Signal metrics are typically tuned to detect specific types of alteration, like compression, photocopying, printing and scanning. The application of signal metrics is useful in determining whether a printed article is genuine.

6. Claims 3, 5-7, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrovic et al (U S 6,430,837 B1) and Ahmed (U S 6,512,837 B1) as applied to claims 1 and 14 above, and further in view of Rhoads et al (U S 6,324,573 B1).

Regarding claim 3, Petrovic and Ahmed are silent about the specific details regarding the system wherein said content is multimedia content. In the same field (watermarking) of endeavor, however, Rhoads discloses linking of computers using information steganographically embedded in data objects comprising the system wherein said content is multimedia content (column 53, lines 49-54).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use content is multimedia as taught by Rhoads in the system of Petrovic because Rhoads provide Petrovic an improved system which the main advantage of this improvement can largely be summarized "information efficiency" and this system has the ability to place further information into the overall protective process.

Regarding claim 5, Petrovic and Ahmed are silent about the specific details regarding the system wherein said digital watermark is a checkerboard pattern or a gray-scale image.

In the same field (watermarking) of endeavor, however, Rhoads discloses linking of computers using information steganographically embedded in data objects comprising the system wherein said digital watermark is a checkerboard pattern or a gray-scale image (see column 51, lines 32-36).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use gray scale image as taught by Rhoads in the system of Petrovic because Rhoads provide Petrovic an improved system which the main advantage of this improvement can largely be summarized " information efficiency" and this system has the ability to place further information into the overall protective process.

Regarding claim 6, Petrovic and Ahmed are silent about the specific details regarding the apparatus wherein said content server is a broadcast operations center to serve content to a plurality of edge serving sites.

In the same field (watermarking) of endeavor, however, Rhoads discloses linking of computers using information steganographically embedded in data objects comprising content server is a broadcast operations center to serve content to a plurality of edge serving sites (fig. 27 element 1006 and column 57, lines 43-66). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use plurality of edge serving sits as taught by Rhoads in the system of Petrovic because Rhoads provide Petrovic an improved system which the main advantage of this improvement can largely be summarized "

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information efficiency” and this system has the ability to place further information into the overall protective process.

Regarding claim 7, Petrovic and Ahmed are silent about the specific details regarding the apparatus wherein a monitor station is located at one of said plurality of edge serving sites.

In the same field (watermarking) of endeavor, however, Rhoads discloses linking of computers using information steganographically embedded in data objects comprising a monitor station is located at one of said plurality of edge serving sites (fig. 27 element 1006 and column 57, lines 43-66).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use monitor station is located at one of plurality of edge serving sites as taught by Rhoads in the system of Petrovic because Rhoads provide Petrovic an improved system which the main advantage of this improvement can largely be summarized “ information efficiency” and this system has the ability to place further information into the overall protective process.

Claim 18, is similarly analyzed as claim 5 above.

Claim 19, is similarly analyzed as claim 6 above.

Other prior art cited

7. The prior art made of record and not relied upon is considered pertinent to Applicant’s disclosure.

U. S. Patent (6,385,329 B1) to Sharma et al is cited for wavelet domain watermarks.

U.S. Patent (6,041,041) to Rammanathan et al is cited for method and system for managing data service systems.

U S. Patent (6,453,420 B1) to Collart is cited for system, method and article of manufacture authorizing the use of electronic content utilizing a laser-centric medium.

U S. Patent (5,946,103) to Curry is cited for halftone patterns for trusted printing.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to ABOLFAZL TABATABAI whose telephone number is (571) 272-7458.

The Examiner can normally be reached on Monday through Friday from 9:30 a.m. to 7:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Mehta Bhavesh M, can be reached at (571) 272-7453. The fax phone number for organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

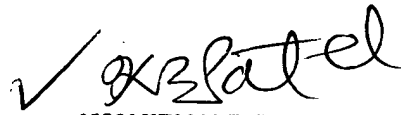
Abolfazl Tabatabai

Patent Examiner

Group Art Unit 2625

June 15, 2005

A. Tabatabai


KANUBHAI PATEL
PRIMARY EXAMINER